10. Device for mixing two pasty substances, in particular a dental impression substance with a catalyst substance, the device comprising

- a housing (42) comprising an essentially tubular section (44) having two inlet openings (68,70) for the two pasty substances at the rear end and an outlet opening (52) for the mixed pasty substances at the front end of the tubular section (44),
- a driveable mixer shaft (38) extending through the tubular section (44) and rotatably supported in the housing (42),
- wherein the mixer shaft (38) comprises a plurality of rigid mixer elements (74) protruding from an axis (72) and serving for mixing the two pasty substances during their passage through the tubular section (44) of the housing (42), and
- an insertion part (62) arranged at the rear end (48) of the housing (42) and extending transversally to the axis (72), the insertion part (62) comprising an inner surface facing the tubular section (44) of the housing (42) and an outer surface forming the rear end (48) of the housing (42) and comprising two inlet stubs,

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characterized in that

- the inlet openings (68,70) radially end in the essentially tubular section (44) of the housing (42),
- the mixer shaft (38) comprises at the level of the radial inlet openings (68,70) at least one deflection element (80) for deflecting the pasty substances radially fed through the inlet openings (68,70) to the tubular section (44) of the housing (42), wherein the at least one deflection element (80) comprises a deflection surface (82) extending about the axis (72) and at an inclination to a radial plane of the axis (72),
- the insertion part (62) is provided on its inner surface with a cylindrical deepened reception portion (69) for the section of the mixer shaft (38) carrying the at least one deflection element (80), and
- from the inlet stubs (54,56) on the outer side of the insertion part (62) two ducts (64,66) extend which end in radial openings of the cylindrical deepened

reception portion (69) on the inner side of the insertion part (62), said openings forming the inlet openings (68,70).

11. Device according to claim 10, characterized in that the at least one deflection element (80) is designed as a wedge.

12. Device according to claim 10, characterized in that two deflection elements (80) are provided which are arranged diametrically opposite each other about the axis (72).

13. Device according to claim 11, characterized in that two deflection elements (80) are provided which are arranged diametrically opposite each other about the axis (72).

14. Device according to claim 10, characterized in that the two deflection elements (80) extend over an angular range of 90° to 180°.

15. Device according to claim 11, characterized in that the two deflection elements (80) extend over an angular range of 90° to 180°.

16. Device according to claim 12, characterized in that the two deflection elements (80) extend over an angular range of 90° to 180°.

17. Device according to claim 10, characterized in that the at least one deflection element (80) comprises a deflection surface (82) helically extending about the axis (72).

18. Device according to claim 11, characterized in that the at least one deflection element (80) comprises a deflection surface (82) helically extending about the axis (72).

19. Device according to claim 12, characterized in that the at least one deflection element (80) comprises a deflection surface (82) helically extending about the axis (72).

20. Device according to claim 14, characterized in that the at least one deflection element (80) comprises a deflection surface (82) helically extending about the axis (72).

21. Device according to claim 10, characterized in that an identical number of mixer elements (74) within a plurality of radial planes protrude from the axis (72) and extend up to near the inner surface (76) of the tubular section (44) of the housing (42).

22. Device according to claim 11, characterized in that an identical number of mixer elements (74) within a plurality of radial planes protrude from the axis (72) and extend up to near the inner surface (76) of the tubular section (44) of the housing (42).

23. Device according to claim 12, characterized in that an identical number of mixer elements (74) within a plurality of radial planes protrude from the axis (72) and extend up to near the inner surface (76) of the tubular section (44) of the housing (42).

24. Device according to claim 14, characterized in that an identical number of mixer elements (74) within a plurality of radial planes protrude from the axis (72) and extend up to near the inner surface (76) of the tubular section (44) of the housing (42).

25. Device according to claim 17, characterized in that an identical number of mixer elements (74) within a plurality of radial planes protrude from the axis (72) and extend up to near the inner surface (76) of the tubular section (44) of the housing (42).

26. Device according to claim 21, characterized in that within a number of radial planes equal to the number of mixer elements (74) per radial plane two mixer elements (74) respectively adjacent to each other in circumferential direction are connected with each other via a portion (78,78') extending in circumferential direction, and that these pairs of mixer elements (74) connected with each other are staggered from radial plane to radial plane in circumferential direction.

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27. Device according to claim 10, characterized in that the mixer shaft (38) comprises a plurality of radially protruding stripper elements (84) which are of flexible configuration and comprise free ends averted from the axis (72) and moving along the inner surface (76) of the tubular section (44) of the housing (42).

28. Device according to claim 11, characterized in that the mixer shaft (38) comprises a plurality of radially protruding stripper elements (84) which are of flexible configuration and comprise free ends averted from the axis (72) and moving along the inner surface (76) of the tubular section (44) of the housing (42).

29. Device according to claim 12, characterized in that the mixer shaft (38) comprises a plurality of radially protruding stripper elements (84) which are of flexible configuration and comprise free ends averted from the axis (72) and moving along the inner surface (76) of the tubular section (44) of the housing (42).

30. Device according to claim 14, characterized in that the mixer shaft (38) comprises a plurality of radially protruding stripper elements (84) which are of flexible configuration and comprise free ends averted from the axis (72) and moving along the inner surface (76) of the tubular section (44) of the housing (42).

31. Device according to claim 17, characterized in that the mixer shaft (38) comprises a plurality of radially protruding stripper elements (84) which are of flexible configuration and comprise free ends averted from the axis (72) and moving along the inner surface (76) of the tubular section (44) of the housing (42).

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32. Device according to claim 21, characterized in that the mixer shaft (38) comprises a plurality of radially protruding stripper elements (84) which are of flexible configuration and comprise free ends averted from the axis (72) and moving along the inner surface (76) of the tubular section (44) of the housing (42).

33. Device according to claim 26, characterized in that the mixer shaft (38) comprises a plurality of radially protruding stripper elements (84) which are of flexible configuration and comprise free ends averted from the axis (72) and moving along the inner surface (76) of the tubular section (44) of the housing (42).

IN THE ABSTRACT:

Please cancel the present Abstract in its entirety and substitute therefore the following (marked-up copy attached):